

national development plan is necessary. Division into two phases after considering the training of employees and the system for construction work execution is proposed. The financial internal rate of return of Phase-I is greater than that of Phase-II. It is suggested to give priority to Phase-I because of the need to implement the Project in coordination with the national development plan. If it is necessary to further divide them according to the scale of the construction funds, a division into 13 segments is proposed.

#### 12.3.4 Training of maintenance personnel

For the smooth execution of operation and maintenance of the new telecommunications facilities, it is necessary to train the required number of maintenance personnel at the same time as the construction work. The present training center of HONDUTEL is insufficient in its equipment and trainers for training on new technologies. It is suggested, therefore, that training of trainers and key engineers should be carried out in the plants of the contractor and general engineers should be trained by participation in the construction work, in Honduras.

#### 12.3.5 Raising the funds for construction

After complete implementation of the Project, it is possible to maintain and manage the facilities within the range of income from the provided service. The significance of implementing the Project in Honduras is great. Therefore, the following suggestions concerning the raising of funds for construction are proposed:

- (1) Implementing the Project entirely by internal funding from HONDUTEL is not favorable for HONDUTEL when considering the low profitability. Use of low-interest long-term loans from local and foreign sources should be studied.
- (2) Implementing the Project entirely by internal funding from HONDUTEL is a heavy burden when considering the large amount of investment necessary. Getting gratuitous subsidies from the government should be studied.
- (3) Regional development projects in the national development plan are packaged with other kinds of projects to obtain the necessary effect through lateral coordination. Implement of the Project in combination with other projects in the form of a package should be studied.

- (4) The construction cost for telecommunications facilities in rural areas is much higher in comparison with that in urban areas. Setting a higher installation fee in rural areas should be studied according to the benefit theory.
- (5) Since a project for rural areas only is not sufficiently profitable, combination with a profitable urban project should be studied.
- (6) Expansion of telecommunication service to rural areas requiring a higher cost for construction, operation and maintenance than urban areas will be necessary in the future. Raising the telephone tariff to cover the expenses should be studied.
- (7) If the planned funds can be raised, the Project will be implemented in two phases. If sufficient construction funds cannot be obtained, the Project should be divided into 13 segments for implementation in order of priority either individually or in combination, according to the scale of the available funds.

## Bibliography

1. HONDURAS EN CIFRAS 1979-1984, Central Bank of Honduras
2. HONDURAS EN CIFRAS 1983-1985, Central Bank of Honduras
3. HONDURAS EN CIFRAS 1986-1988, Central Bank of Honduras
4. HONDURAS EN CIFRAS 1987-1989, Central Bank of Honduras
5. HONDURAS EN CIFRAS 1988-1990, Central Bank of Honduras
6. INDICADORES ECONOMICOS DE CORTO PLAZO 1989-1991, Central Bank of Honduras
7. CENSO NACIONAL DE POBLACION Y VIVIENDA 1988, Ministry of Planning
8. PROGRAMA CONSOLIDADO DE INVERSIONES PUBLICAS 1992, Ministry of Planning
9. PLANES DE DESARROLLO DE CORTO, MEDIANO Y LARGO PLAZO, SECOPT
10. MANUAL DE MATERIALES DIDACTICOS PARA LA ENSEÑANZA DE LA GEOGRAFIA A NIVEL MEDIO, SECOPT
11. MEMORIA ANUAL 1991, SECOPT
12. MEMORIA 1990, COMTELCA
13. MEMORIA 1987, HONDUTEL
14. MEMORIA 1988, HONDUTEL
15. MEMORIA 1990, HONDUTEL
16. PLAN OPERATIVO - PRESUPUESTO 1991, HONDUTEL
17. PLAN OPERATIVO - PRESUPUESTO EJERCICIO FISCAL 1992, HONDUTEL
18. ESTADOS FINANCIEROS 1985-1990, HONDUTEL
19. PLAN DE EXPANSION 1990-1994 TOMO I, HONDUTEL
20. PLAN DE EXPANSION 1990-1994 TOMO II, HONDUTEL
21. PLAN DE EXPANSION 1992-1996, HONDUTEL
22. TABLA NACIONAL DE FRECUENCIAS, HONDUTEL
23. INFORME SECCION DE "PLANTA EXTERNA" MANTENIMIENTO C.S. MES DE FEBRERO 1991, HONDUTEL
24. INFORME SECCION DE "PLANTA EXTERNA" MANTENIMIENTO C.S. MES DE JUNIO 1991, HONDUTEL
25. INFORME SECCION DE "PLANTA EXTERNA" MANTENIMIENTO C.S. MES DE JULIO 1991, HONDUTEL
26. INFORME SECCION DE "PLANTA EXTERNA" MANTENIMIENTO C.S. MES DE AGOSTO 1991, HONDUTEL
27. INFORME ANUAL "1990" SECCION PLANTA EXTERNA DEPARTAMENTO MANTENIMIENTO C.S., HONDUTEL

28. SISTEMA DE INFORMACION GERENCIAL INDICES DE DESEMPEÑO, HONDUTEL
29. DIAGNOSTICO EMPRESARIAL 1990, HONDUTEL
30. DIAGNOSTICO EMPRESARIAL AREA DE PRODUCCION/EXPLOTACION, HONDUTEL
31. MANUAL DE FUNCIONES, HONDUTEL
32. INFORME DE RESULTADOS 1990, HONDUTEL
33. Yearbook of Common Carrier Telecommunication Statistics (18th edition), ITU
34. REPORTS OF THE CCIR, 1990 ANNEX TO VOLUME IX - PART 1, CCIR
35. General Network Planning - GAS 3, CCITT
36. Choice of Telephone Switching Systems - GAS 6, CCITT



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